IN THE CLAIMS

Please amend the claims as follows:

1. (Original) In a data processing system executing tasks in different time partitions, a method of scheduling tasks comprising:

determining available slack; and

allocating slack to tasks in different time partitions.

2. (Original) The method of claim 1 wherein the tasks that are allocated slack are aperiodic, non-essential tasks.

3. (Original) The method of claim 2 wherein the tasks comprise essential and non-essential tasks, and wherein the tasks that are allocated slack are from the group consisting of new non-essential tasks and enhancements to essential tasks.

4. (Original) The method of claim 1 wherein in determining, both timeline slack and reclaimed slack are determined.

5. (Original) A machine-readable medium having instructions stored thereon capable of causing a processor to carry out a method, the method comprising:

scheduling tasks to execute in different time partitions;

determining available slack; and

allocating slack to tasks in different time partitions.

6. (Original) In a data processing system executing tasks in different time partitions, a method of scheduling tasks comprising:

collecting unscheduled execution time from at least one time partition; and,

allocating the unscheduled execution time to a task in another time partition.

7. (Original) The method of claim 6, wherein the task in the other partition is an aperiodic, non-essential task.

8. (Original) The method of claim 7, wherein the tasks comprise essential and non-essential tasks, and wherein the task in the other partition is from the group consisting of new non-essential tasks and enhancements to essential tasks.

9. (Original) The method of claim 6, wherein in collecting unscheduled execution time, both timeline slack and reclaimed slack are collected.

10. (Original) A machine-readable medium having instructions stored thereon capable of causing a processor to carry out a method, the method comprising:

scheduling tasks to execute in different time partitions;

collecting unscheduled execution time from at least one time partition; and

allocating the unscheduled execution time to a task in another time partition.

11. (Original) In a time-partitioned system executing essential and non-essential tasks, a method of scheduling tasks comprising:

determining available slack from the group consisting of timeline slack and reclaimed slack;

pooling available slack in a common slack pool; and

allocating slack from the common slack pool to tasks.

12. (Original) The method of claim 11, wherein in allocating, slack is allocated to non-essential tasks.

13. (Original) The method of claim 11, wherein in allocating, slack is allocated to a task from the group consisting of new non-essential tasks and enhancements to essential tasks.

14. (Original) A machine-readable medium having instructions stored thereon capable of causing a processor to carry out a method, the method comprising:

scheduling tasks to execute in different time partitions;

determining available slack from the group consisting of timeline slack and reclaimed slack;

pooling available slack in a common slack pool; and

allocating slack from the common slack pool to tasks.

15. (Original) In a time-partitioned system executing essential and non-essential tasks, a method of scheduling tasks comprising:

determining available timeline slack;

determining available reclaimed slack;

pooling available timeline and reclaimed slack; and

allocating slack to a task in any time partition.

16. (Original) The method of claim 15, wherein in allocating, slack is allocated to a non-essential task.

17. (Original) The method of claim 15, wherein in allocating, slack is allocated to a task from the group consisting of new non-essential tasks and enhancements to essential tasks.

18. (Original) A machine-readable medium having instructions stored thereon capable of causing a processor to carry out a method, the method comprising:

scheduling tasks to execute in different time partitions;

determining available timeline slack;

determining available reclaimed slack;

pooling available timeline and reclaimed slack; and

allocating slack to a task in any time partition.

19. (Currently Amended) A time-partitioned system comprising:

a processor to execute a plurality of tasks, wherein each task of the plurality of tasks is of a task type selected from the group consisting of essential and non-essential, and wherein each task of the plurality of tasks has associated with it at least one worst case execution time; and

~~a plurality of tasks operating on the processor, wherein each task of the plurality of tasks is of a task type selected from the group consisting of essential and non-essential, wherein each task of the plurality of tasks has associated with it at least one worst case execution time; and~~

an executive to be in communication with the processor and to control ~~controlling~~ dispatching of tasks on the processor, wherein the executive comprises:

a first module that is to determine ~~determines~~ available slack; and

a second module that is to allocate ~~allocates~~ available slack to tasks in different time partitions.

20. (Currently Amended) The time-partitioned system of claim 19, wherein the first module is to determine ~~determines~~ available slack by determining slack from the group consisting of timeline slack, reclaimed slack, and idle time.

21. (Currently Amended) The time-partitioned system of claim 20, wherein the first module is to maintain ~~maintains~~ a pool of available slack.

22. (Currently Amended) The time-partitioned system of claim 20, wherein the first module is to maintain ~~maintains~~ a common pool of available slack that can be used by tasks in any time partition.

23. (Currently Amended) The time-partitioned system of claim 19, wherein the second module is to allocate ~~allocates~~ available slack to tasks that are non-essential.

24. (Original) The time-partitioned system of claim 23, wherein the tasks are from the group consisting of new non-essential tasks and enhancements to essential tasks.

25. (Currently Amended) The time-partitioned system of claim 23, wherein the executive further comprises a third module that is to assign ~~assigns~~ different priority levels to tasks.

26. (Currently Amended) The time-partitioned system of claim 25, wherein the first module is to determine ~~determines~~ available slack for tasks at each priority level.

27. (Currently Amended) The time-partitioned system of claim 25, wherein the second module is to allocate ~~allocates~~ available slack to tasks in order of priority.

28. (Original) The time-partitioned system of claim 19, wherein the system is a flight control system.

29. (Original) The time-partitioned system of claim 19, wherein the system is a real-time control system.

30. (Original) The time-partitioned system of claim 19, wherein the executive comprises a single set of slack variables and a single slack table.